【CLAIMS】

【Claim 1】

A scooter with variable wheel configuration between a two-wheeled vehicle and a three-wheeled vehicle, the scooter comprising:

a frame for supporting and carrying a rider or a passenger and containing a battery and a controller;

a steering assembly mounted on the front of the frame to pivot in left and right directions for steering, the steering assembly having a lower portion to which a front wheel is rotatably mounted and an upper portion provided with a handgrip for a rider to steer, a brake lever, an actuator control lever, and a throttle grip;

a mount formed at a rear end of the frame in one-piece, the mount having a first mounting portion on one end and a second mounting portion on the other end;

a first driving unit detachably mounted on the first mounting portion of the mount for a two-wheeled configuration or on the second mounting portion of the mount for a three-wheeled configuration; and

a second driving unit detachably mounted to the first mounting portion and connected to the first driving unit for the three-wheeled configuration.

【Claim 2】

The scooter of claim 1, wherein each of the first and the second mounting portions includes a fastener for fastening the first driving unit and or the second driving unit.

【Claim 3】

The scooter of claim 2, wherein the fastener is a clamp and each of the first and the second driving units is provided with a notched portion for the clamp.

【Claim 4】

The scooter of claim 1, wherein the first driving unit includes:

a base capable of being detachably mounted to one of the first and second mounting portions of the mount;

an actuator installed at the base and being connected to the controller and the battery;

a drive shaft rotatably attached to the base, the drive shaft having a coupling on one end; and

a wheel rotatably connected to the other end of the drive shaft and the actuator.

【Claim 5】

The scooter of claim 4, wherein the base includes a bent mounting portion for detachably mounting the first driving unit on one of the first and second mounting portions.

【Claim 6】

The scooter of claim 4, wherein the actuator is a reversible motor capable of rotating in both forward and reverse directions.

【Claim 7】

The scooter of claim 4, wherein the actuator includes a first sprocket for power output and the wheel is provided at an inside with a second sprocket in

one piece, the first and the second sprocket being connected by a chain.

【Claim 8】

The scooter of claim 1, wherein the first driving unit is provided with a handle.

【Claim 9】

The scooter of claim 1, wherein the second driving unit includes:

a base capable of being detachably mounted to the mount;

an actuator installed at the base;

a transmission connected with the actuator; and

a drive shaft connected to the transmission and rotatably attached to the base, the drive shaft having one end on which a wheel is mounted and the other end connected to the first driving unit.

【Claim 10】

The scooter of claim 9, wherein the base includes a bent mounting portion for inserting a lower part of the first mounting portion therein.

【Claim 11】

The scooter of claim 9, wherein the actuator is a fossil fuel-powered engine.

【Claim 12】

The scooter of claim 9, wherein the actuator includes a first sprocket for power output and the transmission includes a second sprocket, the first and the second sprocket being connected by a chain.

【Claim 13】

The scooter of claim 9, wherein the second driving unit is provided with a handle.

【Claim 14】

The scooter of claim 4 or claim 9, wherein the second driving unit includes a coupling on the other end of the drive shaft, the coupling of the second driving unit being detachably connected to the coupling of the second driving unit.

【Claim 15】

The scooter of claim 1, wherein the mount is provided with a throttle wire connector connected with the throttle grip via a wire, the throttle wire connector being selectively and detachably connected with actuators of the driving units.

【Claim 16】

The scooter of claim 1, wherein the mount is provided with a brake wire connector connected with the break lever via a wire and a brake assembly of each of the driving units.

【Claim 17】

The scooter of claim 1, wherein the first driving unit comprises an actuator built into a wheel.

【Claim 18】

The scooter of claim 1, wherein the front wheel includes a built-in actuator.